AMENDMENTS TO THE CLAIMS

Please amend the Claim Form and Claim as follows. Insertions are shown underlined while deletions are ~~struck through~~.

1 (previously presented): A method for forming an interlayer insulation film for multilayer interconnect of a semiconductor integrated circuit, comprising the steps of:

forming a first insulation film on a substrate in a reactor by plasma CVD using a first source gas comprising a silicon-containing hydrocarbon gas;

continuously forming a second insulation film on the first insulation film in the same reactor at a thickness less than the first insulation film *in situ* by plasma CVD using a second source gas comprising a silicon-containing hydrocarbon gas and an oxidizing gas; and

subjecting the second insulation film to polishing for forming a subsequent layer thereon.

2 (previously presented): A method for forming an interlayer insulation film for multilayer interconnect of a semiconductor integrated circuit, comprising the steps of:

forming a first insulation film on a substrate by plasma CVD using a first source gas comprising a silicon-containing hydrocarbon gas;

continuously forming a second insulation film on the first insulation film at a thickness less than the first insulation film *in situ* by plasma CVD using a second source gas comprising a silicon-containing hydrocarbon gas and an oxidizing gas; and

subjecting the second insulation film to polishing for forming a subsequent layer thereon,

wherein the first insulation film has a hardness of less than 6 GPa, and the second insulation film has a hardness of no less than 6 GPa.

3 (previously presented): A method for forming an interlayer insulation film for multilayer interconnect of a semiconductor integrated circuit, comprising the steps of:

forming a first insulation film on a substrate by plasma CVD using a first source gas comprising a silicon-containing hydrocarbon gas;

continuously forming a second insulation film on the first insulation film at a thickness less than the first insulation film *in situ* by plasma CVD using a second source gas comprising a silicon-containing hydrocarbon gas and an oxidizing gas; and

subjecting the second insulation film to polishing for forming a subsequent layer thereon,

wherein the first source gas further comprises an oxidizing gas having a flow rate which is less than 1.0 times that of the silicon-containing hydrocarbon gas.

4 (previously presented): A method for forming an interlayer insulation film for multilayer interconnect of a semiconductor integrated circuit, comprising the steps of:

forming a first insulation film on a substrate by plasma CVD using a first source gas comprising a silicon-containing hydrocarbon gas;

continuously forming a second insulation film on the first insulation film at a thickness less than the first insulation film *in situ* by plasma CVD using a second source gas comprising a silicon-containing hydrocarbon gas and an oxidizing gas; and

subjecting the second insulation film to polishing for forming a subsequent layer thereon,

wherein the oxidizing gas in the second source gas has a flow rate which is more than 1.0 times that of the silicon-containing hydrocarbon gas.

5 (original): The method as claimed in Claim 4, wherein the second insulation film is formed under conditions where RF power is reduced and the flow rate of the silicon-containing hydrocarbon is reduced, as compared with those for the first insulation film.

6 (previously presented): A method for forming an interlayer insulation film for multilayer interconnect of a semiconductor integrated circuit, comprising the steps of:

forming a first insulation film on a substrate by plasma CVD using a first source gas comprising a silicon-containing hydrocarbon gas;

continuously forming a second insulation film on the first insulation film at a thickness less than the first insulation film *in situ* by plasma CVD using a second source gas comprising a silicon-containing hydrocarbon gas and an oxidizing gas; and

subjecting the second insulation film to polishing for forming a subsequent layer thereon,

wherein the silicon-containing hydrocarbon in the second source gas has the formula $Si_{\alpha}O_{\alpha-1}R_{2\alpha-\beta+2}(OC_nH_{2n+1})_{\beta}$ where α is an integer of 1-3, β is an integer of 0-2, n is an integer of 1-3, and R is C_{1-6} hydrocarbon attached to Si.

7 (original): The method as claimed in Claim 6, wherein the silicon-containing hydrocarbon is dimethy-dimethoxysilane.

8 (previously presented): The method as claimed in Claim 3, wherein the oxidizing gas is at least one selected from the group consisting of oxygen, dinitrogenoxide, ozone, hydrogen peroxide, carbon dioxide, and polyalcohol.

9 (previously presented): The method as claimed in Claim 3, wherein the silicon-containing hydrocarbon gas in the first source gas and the silicon-containing hydrocarbon gas in the second source gas are the same gas.

10 (currently amended): ~~A~~The method ~~for forming an interlayer insulation film for multilayer interconnect of a semiconductor integrated circuit~~according to Claim 2, ~~comprising~~ the steps of:

~~forming a first insulation film on a substrate by plasma CVD using a first source gas comprising a silicon-containing hydrocarbon gas;~~

~~continuously forming a second insulation film on the first insulation film at a thickness less than the first insulation film *in situ* by plasma CVD using a second source gas comprising a silicon-containing hydrocarbon gas and an oxidizing gas; and~~

~~subjecting the second insulation film to polishing for forming a subsequent layer thereon,~~

wherein the first source gas comprises no oxidizing gas.

11 (previously presented): A method for forming an interlayer insulation film for multilayer interconnect of a semiconductor integrated circuit, comprising the steps of:

forming a first insulation film on a substrate by plasma CVD using a first source gas comprising a silicon-containing hydrocarbon gas;

continuously forming a second insulation film on the first insulation film at a thickness less than the first insulation film *in situ* by plasma CVD using a second source gas comprising a silicon-containing hydrocarbon gas and an oxidizing gas; and

subjecting the second insulation film to polishing for forming a subsequent layer thereon,

wherein the second insulation film is composed of multiple layers having different oxygen contents.

12 (previously presented): A method for forming an interlayer insulation film for multilayer interconnect of a semiconductor integrated circuit, comprising the steps of:

forming a first insulation film on a substrate by plasma CVD using a first source gas comprising a silicon-containing hydrocarbon gas;

continuously forming a second insulation film on the first insulation film at a thickness less than the first insulation film *in situ* by plasma CVD using a second source gas comprising a silicon-containing hydrocarbon gas and an oxidizing gas; and

subjecting the second insulation film to polishing for forming a subsequent layer thereon,

said method further comprising forming via holes and/or trenches in the first and second insulation films, and filling the holes and/or trenches with copper for interconnect, wherein the polishing conducted thereafter is chemical mechanical polishing (CMP).

13-21 (canceled)